



Application No. 10/775,702
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NIT-5094

Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application.

Listing of Claims:

22. (Currently Amended) A storage system comprising:

a plurality of disks including first disks configuring a RAID group and at least one second disk, wherein each of the first disks stores one of data received from a computer coupled to the storage system or parity data used for recovering the data received from the computer, and wherein the at least one second disk is to be used as a spare disk; and

a control section configured to hold an error status of each of the first disks, and to start to mirror data between one of the first disks and the at least one second disk when the error status of the one of the first disks matches a predetermined first criterion,

wherein, after starting to mirror data between the one of the first disks and the at least one second disk, the control section is configured to stop mirroring data between the one of the first disks and the at least one second disk and start to mirror data between another one of the first disks and the at least one second disk, according to the error status of the one of the first disks and the another one of the first disks.

23. (Previously Presented) A storage system according to claim 22, wherein
the control section is configured to compare the error status of each of the first
disks, and

based on the result of error status comparison between the one of the first
disks and the another one of the first disks, the control section is configured to stop
mirroring data between the one of the first disks and the at least one second disk
and start to mirror data between the another one of the first disks and the at least
one second disk.

24. (Previously Presented) A storage system according to claim 22, wherein
when the error status of one of the first disks matches a predetermined
second criterion, the control section is further configured to stop mirroring between
the one of the first disks and the at least one second disk and configure a RAID
group including the at least one second disk instead of the one of the first disks.

25. (Currently Amended) A storage system according to claim 24, wherein
the error status of each of the first disks is an error count of each of the first
disks, and both of the predetermined first criterion and the predetermined second
criterion are predetermined values of the error count.

26. (Currently Amended) A storage system according to claim 25, wherein
the value of the error count for the predetermined first criterion is zero,
whereby the control section is configured to mirror data between the one of the first
disks and the at least one second disk initially.

27. (Previously Presented) A storage system according to claim 25, wherein the
error count for the first criterion is updated according to the change of the error
status of the first disks configuring a RAID group.

28. (Currently Amended) A storage system according to claim 22, wherein
the error status of each of the first disks is an error count of each of the first
disks, and
when the error count of the another one of the first disks becomes larger than
the error count of the one of the first disks, the control section is configured to stop
mirroring data between the one of the first disks and the at least one second disk
and start to mirror data between the another one of the first disks and the at least
one second disk.

29. (Previously Presented) A storage system according to claim 22, wherein
information indicating a pair of disks configuring a mirroring pair is output from the
storage system to a management computer coupled to the storage system.

30. (Previously Presented) A storage system according to claim 22, wherein the predetermined first criterion is updated based on the error status of the first disks configuring a RAID group.

31. (Previously Presented) A storage system according to claim 22, wherein the control section is configured to start to mirror data between said another one of the first disks and the at least one second disk before a plan of mirroring data between said one of the first disks and the at least one second disk is completed.

32. (Previously Presented) A storage system according to claim 22, wherein the control section is configured to start to mirror data between said another one of the first disks and the at least one second disk, if the error status of said another one of the first disks is greater than or equal to the error status of said one of the first disks.

33. (Currently Amended) A storage system comprising:

a plurality of disks including first disks configuring a RAID group and at least one second disk, wherein each of the first disks stores one of data received from a computer coupled to the storage system or parity data used for recovering the data received from the computer, and

a control section configured to hold an error status of each of the first disks,
and to start to mirror data between one of the first disks and the at least one second
disk when the error status of the one of the first disks matches a predetermined first
criterion,

wherein, after starting to mirror data between the one of the first disks and the
at least one second disk, the control section is configured to stop mirroring data
between the one of the first disks and the at least one second disk and start to mirror
data between another one of the first disks and the at least one second disk,
according to the error status of the one of the first disks and the another one of the
first disks.

34. (Previously Presented) A storage system according to claim 33, wherein
the control section is configured to compare the error status of each of the first
disks, and

based on the result of error status comparison between the one of the first
disks and the another one of the first disks, the control section is configured to stop
mirroring data between the one of the first disks and the at least one second disk
and start to mirror data between the another one of the first disks and the at least
one second disk.

35. (Previously Presented) A storage system according to claim 33, wherein

when the error status of one of the first disks matches a predetermined second criterion, the control section is further configured to stop mirroring between the one of the first disks and the at least one second disk and configure a RAID group including the at least one second disk instead of the one of the first disks.

36. (Currently Amended) A storage system according to claim 35, wherein the error status of each of the first disks is an error count of each of the first disks, and both of the predetermined first criterion and the predetermined second criterion are predetermined values of the error count.

37. (Currently Amended) A storage system according to claim 36, wherein the value of the error count for the predetermined first criterion is zero, whereby the control section is configured to mirror data between the one of the first disks and the at least one second disk initially.

38. (Previously Presented) A storage system according to claim 36, wherein the error count for the first criterion is updated according to the change of the error status of the first disks configuring a RAID group.

39. (Currently Amended) A storage system according to claim 33, wherein

the error status of each of the first disks is an error count of each of the first disks, and

when the error count of the another one of the first disks becomes larger than the error count of the one of the first disks, the control section is configured to stop mirroring data between the one of the first disks and the at least one second disk and start to mirror data between the another one of the first disks and the at least one second disk.

40. (Previously Presented) A storage system according to claim 33, wherein information indicating a pair of disks configuring a mirroring pair is output from the storage system to a management computer coupled to the storage system.

41. (Previously Presented) A storage system according to claim 33, wherein the predetermined first criterion is updated based on the error status of the first disks configuring a RAID group.

42. (Previously Presented) A storage system according to claim 33, wherein the control section is configured to start to mirror data between said another one of the first disks and the at least one second disk before a plan of mirroring data between said one of the first disks and the at least one second disk is completed.

43. (Previously Presented) A storage system according to claim 33, wherein the control section is configured to start to mirror data between said another one of the first disks and the at least one second disk, if the error status of said another one of the first disks is greater than or equal to the error status of said one of the first disks.